# "APPROVED FOR RELEASE: 06/13/2000

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。	<b>州市区北部</b>
L 61695-65 EWT (m) Pab DIAAP UR/0089/64/017/004/0313/0314 ACCESSION NR: AP5019462 /O	
AUTHOR: Frolow, V. V.  TITLE: Scientific Conference of MIFI (Moscow Engineering Physics Institute)  SOURCE: Atomnaya energiya, v. 17, no. 4, 1964, 313-314  TOPIC TAGS: nuclear physics conference	
ABSTRACT: About 250 papers were presented at the annual scientific conference of the MIFI, held in May 1964. Among papers of interest to ference of the MIFI, held in May 1964. Among papers of interest to nuclear scientists were those in the experimental nuclear physics section nuclear scientists were those in the experimental nuclear physics chiefly devoted to the study of particles; theoretical nuclear physics chiefly devoted to the study of particles; theoretical nuclear role section (papers on "Moving branching points on a j-plane and the probscit in the asymptote of strong reactions at great energies"; "On the probin the asymptote of strong reactions at great energies"; "On the probscit in the asymptote of strong reactions at great energies"; "On the probscit in the asymptote of nuclei"; "On spontaneous fissioning of nuclei"); ability of \$\beta\$-decay of nuclei"; "On spontaneous fissioning of nuclei"); two sections on experimental physics, including papers on neutron transfer equations and water-boiling processes at reduced pressures; a section on equations and water-boiling processes at reduced pressures; a section of equations and the physics of nuclear radiations in which the following subjects were treated: development of radioisotops methods for studying jects were treated:	
	AND HELD IN BUILDING

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SOURCE CODE: UR/0089/65/019/003/0314/0316 ACC NR AUTHOR: Frolow, V. V. ORG: none TITLE: Scientific conference of MIFI (Moscow Engineering and Physics Institute) SOURCE: Atomaya energiya, v. 19, no. 3, 1965, 314-316 TOPIC TAGS: muon hydraulic resistance, mass spectrometry, linear accelerator, electron accelerator, ion beam, laser beam, physics conference, erosion, gas discharge, miglear reactor ABSTRACT: The annual MTFI scientific conference hear 210 reports in 53 sessions of 22 sections when the 2000 participants met 5-21 May 1965. Among the most interesting reports and subjects discussed were: the energy spectra of cosmic muons at great zenith distances in the 1011-1012 ev energy range; the construction of a strictly phenomenological approach to the theory of the nucleus and the problem of many bodies; new synthetic methods of calculation of distribution of neutron fields in reactors; hydraulic resistance and heat exchange upon longitudinal flow around a group of rods; the study of molecular processes with mass spectrometry; the influonce of electric fields on photographic emulsion density; the influence of inhomogeneities in shielding on its effectiveness; theoretical and experimental studies of linear electron accelerators; the effect of erosion

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AUTHOR: Frolov, V. V.

ORG: none

TITLE: MIFI Scientific conference

SOURCE: Atomnaya energiya, v. 21, no. 3, 1966, 220-222

TOPIC TAGS: physics conference, high energy particle, meson, hyperon, neutron distribution, plastic deformation, electron flux, neutron diffusion, eigenvalue, metal zone melting

#### ABSTRACT:

The twenty-third annual scientific conference of the Moscow Engineering Physics Institute (MIFI) was held from 5 to 20 May 1966. Approximately 900 participants from various scientific-research institutes, universities, and factories heard about 300 reports by the instructors and students of the Institute and also by colleagues from other scientific institutions.

Several highly interesting papers were presented on the physics of high-energy particles. In particular, V. V. Borog and his co-

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ACC NR: AP6032409

workers reported on experiments on electron-photon cascades produced in iron by muon cosmic rays with energies of  $8\cdot 10^{11}$  ev performed with an ionization calorimeter. The results were compared with theoretical cascade curves for various values of radiation units with the best agreement obtained when the radiation unit  $t = 14 \text{ g/cm}^2$ .

V. S. Demidov and others reported on the pair production of strange particles in research conducted with the 105-cm MIFI propane-freon bubble chamber. The mass spectrum was obtained in the  $K^0$   $\lambda^0$  -system. Demidov and his colleagues also studied the production of  $K^0$ -mesons and  $\lambda$ -hyperons on hydrogen and light nuclei by 4 Bev/c  $\pi$ -mesons. The energy and momentum distributions of the  $K^0$ -mesons and the  $\lambda$ -hyperons were also determined.

Of paramount interest in the field of reactors were the reports delivered by V. V. Khromov, I. S. Slesarev, A. M. Kuz'min, and others devoted to numerical methods of calculating reactors. Precise ways of determining a neutron field, and also effective methods of finding the criticality conditions and neutron distribution in multi-dimensional geometries were presented. The algorithms proposed

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ACC NR: AP6032409 significantly shorten computer operation time and are particularly useful in variational calculations. In reports on reactor theory, S. B. Shikhov, L. K. Shishkov, and others presented proof for the existence and uniqueness of the solution of neutron transport equations and of problems of nonlinear reactor dynamics (self-oscillating regimes). Shishkov and Shikhov also collaborated on a paper dealing with a theory of higher order perturbations for solving certain reactor calculation. problems. It was reported that the variation of the neutron transport operator eigenvalue and its eigenfunction (neutron flux) can be obtained without a complete set of eigenfunctions. Even in the first approximation this method permits a more exact calculation of Keff than with the generally accepted perturbation theory. In the area of the physics of shielding, I. E. Konstantinov and B. Ya. Narkevich reported the development of a new method of measuring spatial distribution of doses and fluxes of electrons during the passage of a thin beam of  $\beta$ -particles through a light material using a scintillation spectrometer. This method, based on the Card 3/6

ACC NR: AF6032409 use of thin scintillating films and the designed detector, makes possible measurements without addition of perturbations to the investigated object. The absorbed dose is determined exactly both within and outside the beam. A report on experimental research conducted by S. B. Stepanov and his colleagues on the diffusion parameters of hydrogeneous media evoked great interest among the conferees. In this work, the interrelationship between the neutron diffusion coefficient and the self-diffusion coefficient of the medium was determined. V. I. Deyev and G. P. Dubrovskiy reviewed the results of their experimental research on heat transfer and critical heat loads in volume boiling of water under a vacuum. It was shown that the boiling of water and liquid metals under low pressures is similar. L. S. Kokorev and others described a new method of determining the contact angle in liquid metal wetting by measuring the maximum temperature in a gas bubble. New data was presented on the angle of contact for sodium and potassium. Card 4/6

ACC NR. A1:6032409

Growing of molybdenum monocrystals by the zone melting method was described by Ye. M. Savitskiy and G. I. Burkhanov. A. A. Rusakov and others studied the fine structure of molybdenum monocrystals grown by precipitation from the gas phase. A. I. Yevstyukhin and his colleagues reported on the peculiarities of plastic deformations of molybdenum monocrystals during rolling and tension, and N. F. Litvinova reported on methods of determining the gas content in puremolybdenum.

In a series of papers, P. L. Gruzin, L. A. Alekseyev, G. N. Shlokov, and others presented the results of investigations of properties of solids by the Mössbauer method. Of particular note was a report on research conducted on the properties of stanniferous ferrites of the magnesium-manganese system for which the intrinsic effective magnetic fields of the Sn<sup>119</sup> nuclei and their temperature variations were determined from the Zeeman patterns. The practical uses of the Mössbauer method for solving technological problems in obtaining ferrites with the necessary magnetic properties were also discussed.

Card 5/6

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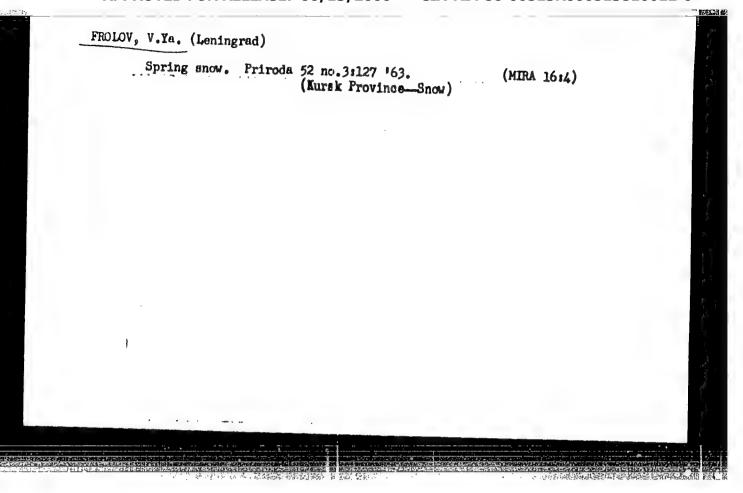
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	Dubovskiy, B. G.; Kamayev, A. Murashov, A. P.; Markelov, V. Ya.; Diyev, L.V.; Bogal Critical parameters of system handbook (Kriticheskiye pyadernaya bezopasnost; sidiagrs., tables. 9000 cop TOPIC TAGS: nuclear safety, heterogeneous nuclear results the problems of assuring signing, operating, and as well as for students creating and maintaining accidentally chain react fissionable materials.	Monograph  V.; Kuznetsov, F. M.; VI, I. P.; Kochergin, V. P.; tyrev, V.K.; Vavilov, V. V. Was with fissionable materisarametry sistem s delyashopravochnik) Moscov. Atomics printed.  muclear reactor, homogeneractor, chain reaction  handbook is intended for muclear safety as well as studying the physics of muin associated departments. Conditions which will excite the muclear safety as well as the safety as well as associated departments. Conditions which will excite the book is based mainly condition to information of the muthors considered.	als and muclear safety; a chimisya veshchestvami i mizdat. 1966. 225 p. biblio., eous muclear reactor, specialists concerned with for persons calculating, declear reactors of various type. The book discusses methods o clude the possibility of an , storage, and transportation of on the results of studies pubmic critical parameters of system dit useful to include in the principles for assuring muclean controlled chain reactions,	The contract of the sale of th
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and the basic standards for nuclear M. P. Rodionov, T. I. Sukhoverkhova their valuable assistance. There as TABLE OF CONTENTS (Abridged)  From the authors 3  Ch. I. Basic concepts of nuclear safet Ch. II. Review of experimental data or fissionable materials 14  Ch. III. Methods of calculating homoge Ch. IV. Effect of neutron absorbers on fissionable materials 142  Ch. V. Criticality of systems of interfissionable materials 169  Ch. VI. Uncontrolled chain reaction on materials 202  Ch. VII. Basic standards for assuring the securing of the control of the co	ty 5 in critical parameter income reactors { in the criticality of macting subcritical thursts in systems	of which are Soviet  of which are Soviet  s of systems with  systems with  essemblies from  containing fissionsh	or te	The state of the s
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Optimal system of radiating fins. Izv. AN SSSR Energ. 1 transp. 6:750-755 N-D '64. (MIRA 18:3)

L 32031-66 EWT(m)/FWP(y)/T/EWP(t)/ETI/EWP(k) JJP(c) JD/WW/IN/JG ACC NR: AP6019426 (N) SOURCE CODE: UR/0135/66/000/006/0007/0010  AUTHOR: Frolov, V. V. (Doctor of technical sciences); Gorshkov, A. I. (Candidate of technical sciences)	6
ORG: none  TITLE: Effect of hydrogen on the formation of porosity during argon-shielded arc	
SOURCE: Svarochnoye proizvodstvo, no. 6, 1966, 7-10  TOPIC TAGS: titanium alloy, titanium alloy welding, argon shielded welding, alloy weld, weld porosity, hydrogen porosity, arc welding/VT1-2 alloy, VT14 alloy, VT15	10 mm
ABSTRACT: The relationship between porosity formation and hydrogen diffusion in titanium alloy welds has been investigated. VT1-2, VT14, and VT15 alloy sheets 2.5, 250 and 1.2 mm thick were welded under the following respective conditions: current 165, The experiments showed that the maximum desorption of hydrogen occurred in the front part of the melting pool. Desorption of hydrogen prevailed the provided that the front	•
input: an increase of heat input from 300 to 900 kg·cal/cm increased the volume of diffused hydrogen from 2.1.10 <sup>-4</sup> to 16.10 <sup>-4</sup> cm <sup>3</sup> and the weld porosity about 8 times.	
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iffused and desorpted hydretal remains for a prolonging heat input. There is, eat input to the values be	o in the <u>liquid state</u> great rogen and the porosity in t ged period of time in the l however, a critical value elow the critical increases	the weld; all three liquid state, i.e., of heat input. An s the amount of por	decrease if with increas- increase of osity. Only
fter the critical value has further increase of heat in	as been exceeded does the annut. Orig. art. has: 8	amount of porosity figures and 4 table	drop with a s. [AZ]
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FROLOY, Viktor Yakovlevich, toker'; CHERNOV, Ye., red.; LIL'YE, A., tekhn.

[Everyone can have skilful hands] Umelye ruki mogut byt' u kashdogo. [Moskva] Moskovskii rabochii, 1957. 46 p. (MIRA 11:5)

1. Hoskovskiy zavod kontrol\*no-izmeritel\*nykh priborov (for Frolov)

(Technical education)

### "APPROVED FOR RELEASE: 06/13/2000 C

### CIA-RDP86-00513R000513810012-0

FROLOV, V.Ya.

On the necessity of clarifying some regulations of the Operating Rules. Zhel.dor.transp. 39 no.7:61-64 Jl '57. (MLRA 10:8)

1. Zamestitel' nachal'nika tekhnicheskogo otdela Upravleniya Oktyabr'skoy dorogi.

(Railroads--Hanagement)

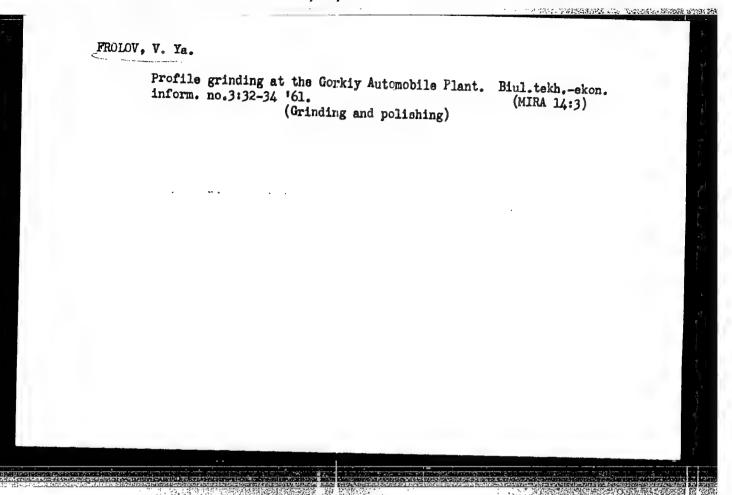
1719年美国出版的经验的特别的原始。中华的经验的逻辑系统中的存在通讯的连续

FROLOV, V.Ya.

Design and operation problems of ponds and small reservoirs.

Trudy Lab. ozeroved. 7:148-151 '58. (MIRA 11:10)

1. Inhoratoriya ozerovedeniya AN SSSR.
(Farm ponds) (Reservoirs)

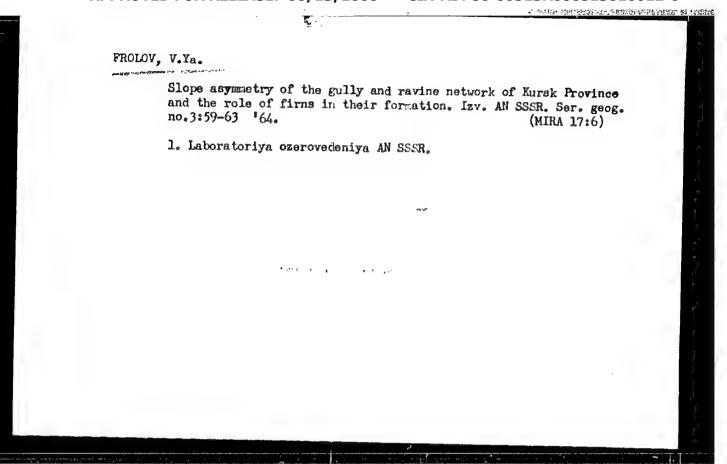


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### CIA-RDP86-00513R000513810012-0

Developion of crosion produced by wager in Eurok and Vorenech Provinces. Trudy Lab. oseroved. 13:185-221 '61.

( trush Province-Erosion)
(Vorenech Province-Erosion)
(Coservior sedimentation)



### "APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000513810012-0

FROLOV, V. L.

USER/ Miscellaneous - Ceramics manufacture

Card 1/1

Pub. 123 - 7/16

Authors

Nagornyy, A. I.; Frolov, V. E.; Lebedev, M. A.; Khokhol kova, L. A.; and Mikhaylyants, U. A.;

Title

Manufacture of ceramic sewer pipes from Lengersk infusible clay

Periodical

Vest. AN Kaz. SSR 12, 63-67, Dec 1954

Abstract

The possibility of manufacturing high-quality ceramic sewer pipes from infusible Lengersk clays are discussed. The technological process employed in the manufacture of refractory tubes is described. Two USSR references (1941 and 1952). Tables.

Institution :

Submitted

M. I. Goryaev, Active Member of Acad. of Sc. Kaz-SSR

BRAGINSKIY, K.I.; FROLOV, Ya.A.

Mathematical analysis of the behavior of glass during molding. Stek. i ker. 18 no.10:22-26 0 °61. (MIRA 14:11) (Glass manufacture)

GUR'YANOVA, M.F.; FROLOV, Ya.A.

"Granulating" a glass batch with large-grained sand. Stek. i ker.
18 no.10:26-27 0 '61. (MIRA 14:11)

(Glass manufacture)

AKRIDIN, A., inzh.; FROLOV, Ye., inzh.

Two-cantilever roof panels measuring 3x12 made of keramzit concrete.

Na stroi.Ros. 3 no.6:27-28 Je '62. (MIRA 16:7)

(Keramzit) (Roofing, Concrete)

VASSOYEVICH, N.B., prof., doktor geol.-miner.nauk; AMDHEYEV, P.F., kand. khim.nauk; BELYAKOV, N.F., kand.geol.-miner.nauk; BARAHOVA, T.E., nauchnyy sotrudnik; BUSHINSKIY, G.I., prof.; GEKKER, R.F., prof., doktor biolog.nauk; GHOSSOEM, V.A., kand.geol.-miner.nauk; ITENBERG, S.S., dotsent; KRISHTOPOVICH, A.N.; LYUBOMIROV, B.N., kand.geol.-miner.nauk; POKROVSKAYA, I.M., prof., doktor geol.-miner.nauk; RADCHENKO, O.A., kand.khim.nauk; RUKHIN, L.B., prof., doktor geol.-miner.nauk; TORGOVAHOVA, V.B., gidrogeolog; USPENSKIY, V.A., kand.khim.nauk; FROLOY, TALE, kand.geol.-miner.nauk; FURSENEO, A.V.; KHAIN, V.Ye., prof., doktor geol.-miner.nauk; FURSENEO, A.V., khain, v.Ye., prof., doktor fiziko-matem.nauk; YASHGHURZHINSKAYA, A.B., vedushchiy red.; SOKOLOVA, Ye.V., tekhn.red. (Continued on next card)

VASSOYEVICH, N.B. -- (continued) Card 2.

[Handbook for field geologists and petroleum prospectors]
Sputnik polevogo geologa - neftianika. Leningrad, Gos.nauchnotekhn.izd-vo neft. i gorno-toplivnoi lit-ry, Leningr.otd-nie,
1952. 504 p. (HIRA 12:12)

1. Groznenskiy ordena Trudovogo Krasnogo Znameni neftyenov institut (for Itenberg). 2. Deystvitel'nyy chlen AN Ukrainskoy SSR (for Krishtofovich). 3. Chlen-korrespondent AN Belorusskoy SSR (for Fursenko).

(Petroleum geology -- Handbooks, manuals, etc.)

FROLOV, Nikolay Fedorovich; FROLOV, Yevgeniy Fedorovich; PERSHINA, E.G., vedushchiy redaktor; SHIKIN, S.T., tekhnichettiy redaktor;

[Geological observations and structures during the drilling of deflected wells) Geologicheskie nabliudeniia i postroeniia pri burenii iskrivlennykh skvazhin, Moskva, Gos.nauchno-tekhn.izd-ve neft. i gorno-toplizzci lit-ry, 1957. 183 p. (MLRA 10:4)

(Oil well drilling)

BROD, Ignatiy Osipovich; FROLOV, Yevgeniy Fedorovich; YERSHOV, P.R., vedushchiy redaktor; TROFINOV, A.V., tekhnicheskiy redaktor

[Search and exploration for oil and gas deposits] Poiski i razvedka neftianykh i gazovykh mestorozhdenii. Izd. 2-oe, perer. i dop.

Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi litry, 1957. 674 p.

(Petroleum) (Gas. Natural) (Prospecting)

SIYOKHINA, M.B.; PROLOY, Ye.P.

Determining the accuracy of well surveying measurements and calculating errors, Trudy VMII no.11:321-339 '57. (MIRA 10:11)

(Oil wells--Measurement)

FROLOU, Te.J.; SERGANOVA, I.I.

Effect of well surveying errors on the accuracy of platform upland structural maps. Trudy VHII no.11:340-346; 57. (MIRA 10:11)

(Geology-Maps)

PROLOT. YO. P.; SURGANOVA, I.I.

Projecting deflected well logs on a profile section. Trudy VNII no.11: 347-354 \*57. (MLEA 10:11) (Prospecting--Geophysical methods) (Geology, Stratigraphic)

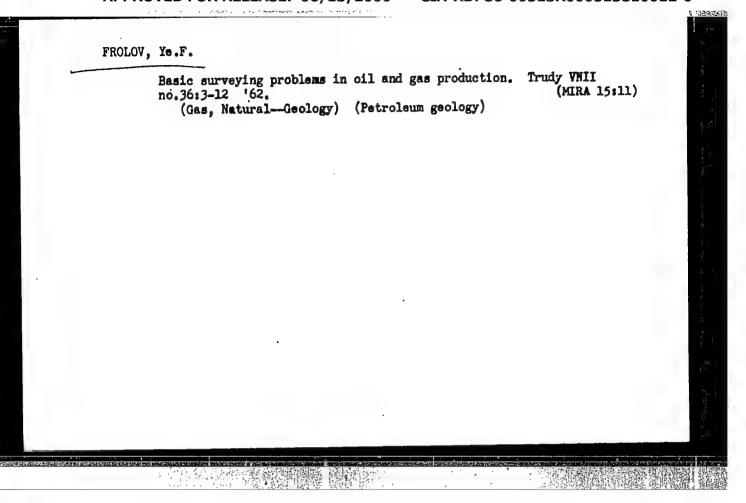
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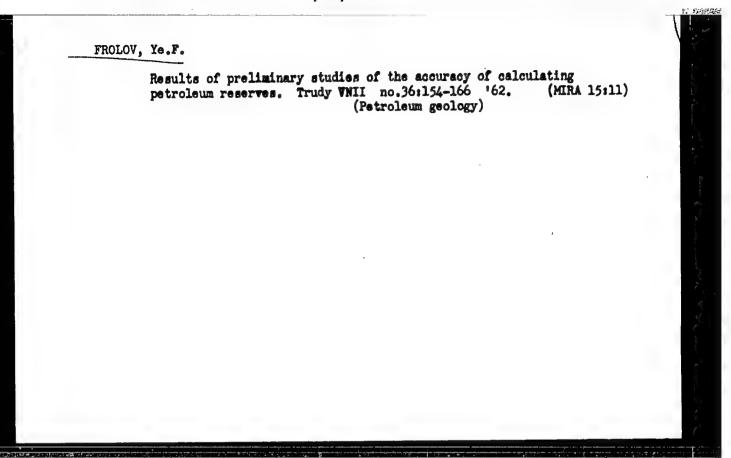
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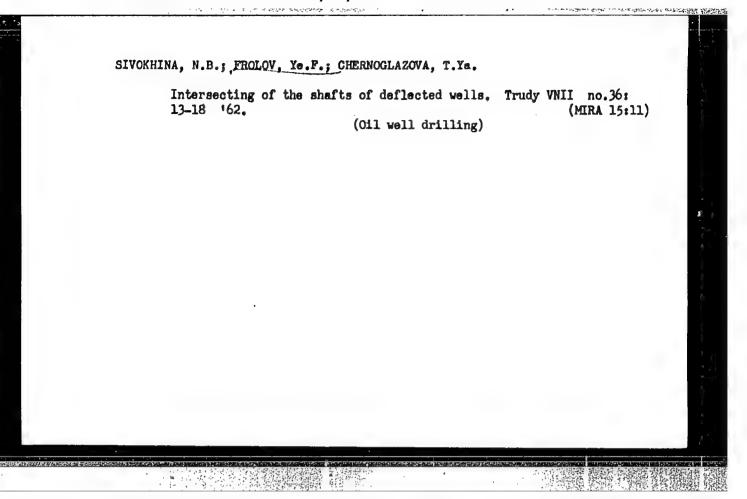
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VASIL'YEV, Yu.S.; SIVOKHINA, N.B.; FROLOV, Ye.F.; CHERNOGLAZOVA, T.Ya.

Permissible deflections of bottom holes from the planned position; a topic for discussion. Neft. khoz. 39 no.4:14-20 Ap '61. (MIRA 14:6)







Prolov, Ye.F.; SIVOKHINA, N.B.; DEMENT'YEV, L.F.; KOCHETOV, M.N.; MOLOTOV,
N.A.;

Préliminary method of evaluating the accuracy of calculating petroleum reserves by the volume method. Trudy VNII no.36:38-56
'62. (MIRA 15:11)

(Petroleum geology)

### FROLOV, Ye.I.

Rare case of perforation of the intestinal wall by foreign bodies with the formation of an arteriovenoys aneurysm. Khirurgiia 38 no.10:124-125 0 162. (MIRA 15:12)

1. Iz gospital'noy khirurgicheskoy kliniki (i. o. zav. kafedroy - dotsent G.N. Zakharova) Saratovskogo meditsinskogo instituta. (ABDOMINAL ANEURYSM) (INTESTINES—FOREIGN BODIES)

### "APPROVED FOR RELEASE: 06/13/2000

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PERESLEGIN, Viktor Ignat'yevich; FROLOV, Ye.P., otv. red.; MEDVEDEVA, R., red. izd-va; TELEGINA, T., tekhn. red.

[Regime of economy during the period of the building of communism]Rezhim ekonomii v period stroitel'stva kommunizma.

Moskva, Gosfinizdat, 1962. 86 p. (MIRA 16:2)

(Industrial management)

FROLOV, VE. P.

## PHASE I BOOK EXPLOITATION

305

Ganshtak, Vladimir Iosifovich

Ocherki po ekonomike mashinostroitel'noy promyshlennosti SSSR (Essays on the Economics of the Machine-building Industry of the USSR) Simferopl', Mashgiz, 1957. 418 p. 6,000 copies printed.

Ed: Frolov, Ye. P.; Ed. of Publishing House: Bogolyubova, I.Yu. (Deceased); Tech. Ed.: El'kind, V.D.

PURPOSE: The book is intended for a wide circle of engineers, technical personnel, and economists in the machine-building industry, and also for scientific workers and students in institutions of higher learning.

COVERAGE: The book discusses the following basic problems of the economics of the USSR's machine-building industry: the development of machine building as a leading branch of industry; technical developments in machine building; concentration, specialization, cooperation, and combination in the machinebuilding industry; principal and turnover funds; personnel,

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Essays on the Economics of the Machine-building Industry (Cont.) 305
cadres, labor productivity, and wages; cost of production
and profitableness in machine building. The book also
indicates ways and means for greater utilization of resources
in the further growth and improvement of production. According
in the foreword, this is a first attempt to consider the
to the foreword, this is a first attempt to consider the
principal questions of economics of machine building on the
basis of their connections and interrelations. The text is
abundantly illustrated with statistical data and examples.

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VK/ksv 6-20-58

Card 7/7

TROITSKIY, Petr Aleksandrovich; STUCHEVSKIY, Mark Pavlovich; MEYMAN, Z.N., inzh., retsenzent; FROLOV, Ya.P., inzh., retsenzent; BOGINSKIY, M.N., inzh.-ekon., red.; TKACHUN, A.I., red.izd-va; KL'KIND, V.D., tekhn.red.

[Cost planning for suchinery manufacturing plants; methods and practice] Planirovanie sebestoimosti na mashinostroitel'nom savode; metodika i praktika. Moskva, Gos.nauchno-tekhn.isd-vo mashinostroit.lit-ry, 1959. 249 p. (MIRA 12:4) (Machinery industry--Costs)

#### "APPROVED FOR RELEASE: 06/13/2000 C

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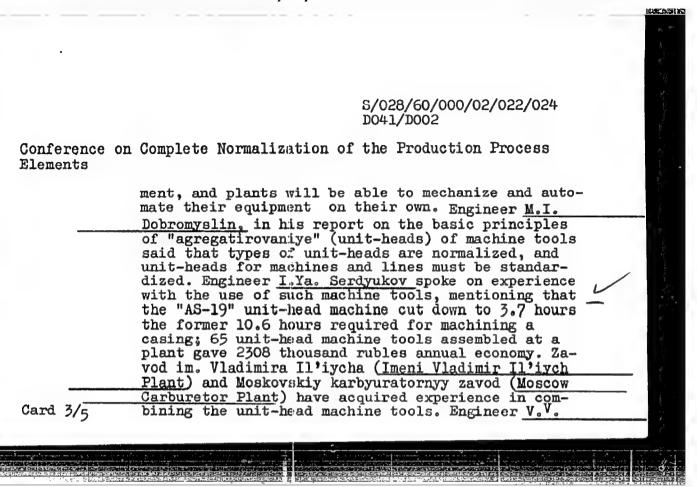
28(3) \$/028/60/000/02/022/024 D041/D002 Frolov, Ye.S. AUTHOR: Conference on Complete Normalization of the Produc-TITLE: tion Process Elements Standartizatsiya, 1960, Nr 2, pp 59 - 60 (USSR) PERIODICAL: ABSTRACT: Information is given on a conference convened in December 1959 by the Moskovskiy dom nauchno-tekhnicheskoy propagandy im.F.E. Dzerzhinskogo (Moscow House of Scientific-Technical Propaganda imoni W. H. Dzerzhinskiv) and the Nauchno-issledovatel'skiy institut tekhnologii i organizatsii proizvodstva (Scientific Research Institute of Technology and Production Organization). Delegates from about 150 plants, institutes and design offices were present. Professor V.V. Boytsov stated in his report "Normalization" Bases of Mechani-Card 1/5

S/028/60/000/02/022/024 D041/D002

Conference on Complete Normalization of the Production Process Elements

zation and Automation of Production Processes" that small-series production works are very little mechanized and automated. The new trend of automation is by means of special machines and automatic lines with extensive use of exchangeable units. After an analysis of parts classification and operations, it can be assumed that about 40% of machine tools of plants with small-series production output can be fitted with special cutting equipment, and up to 90% of all equipment elements can be normalized in the machine-tool industry. There are 72 unit-head machine tools at a plant, they brought about an annual economy of 2300 thousand rubles. Many of them were assembled in a few weeks. They may be easily taken apart and the unit heads rearranged into different combinations. The idea suits other equip-

Card 2/5



S/028/60/000/02/022/024 D041/D002

Conference on Complete Normalization of the Production Process

Kuz min reported on the basic trends and methods of the normalization of auxiliary equipment. Engineer Sh.G. Rubin spoke of normalization of the electric equipment elements and the possibilities of automatic and semi-automatic welding with frequently changing work. Engineer A.Z. Ramm reported on unification of foundry equipment, ingot molds and technological casting process elements for large aluminum castings, saying that some plants and institutes are now designing and using large ingot molds and casting machines without any normalization or unification of the major and auxiliary equipment, which considerably reduces the economical gain. Candidate of Technical Science V.V. D'yachenko spoke on typization and normalization of welding technology and the importance of special welding equipment consisting of nor-

Card 4/5

S/028/60/000/02/022/024 D041/D002

Conference on Complete Normalization of the Production Process Elements

malized component units. Engineer Bryskin-Iyamin discussed the problems of normalization of special auxiliary foundry equipment and major foundry equipment elements. Candidate of Technical Science V.A. Leonov spoke on the normalization problems for work processes and major and auxiliary equipment of blank-stamping shops. Engineer I.G. Naydov reported on technical and economic effects of overall normalization of all elements of technological processes. The conference approved the new trends and marked measures for practical application.

Card 5/5

FROLOV. Ye. S. Cand Tech Sci -- (diss) "Study of the condition of two-cycle piston vacuum pump!" Mos, 1958. 10 pp (Min of Higher Education USSR. Mos Order of Lenin and Order of Labor Red Banner Higher Tech School im N. E. Bauman), 150 copies (KL, 52-58, 103)

**-7**4 -

FROLON, Ja.S.

14(1)

PHASE I BOOK EXPLOITATION

SOV/2472

- Væsoyuznyy nauchno-issledovatel'ski**y** i konstruktorskiy institut khimicheskogo mashinostroyeniya
- Konstruirovaniye i issledovaniye kompressorov i vakuum-nasosov (Design and Investigation of Compressors and Vacuum Pumps) Moscov, Mashgiz, 1958.
  90 p. (Series: Its: Sbornik statey, 22) 5,000 copies printed.
- Ed.: V.A. Rumyantsev, Engineer; Ed. of Publishing House: A.M. Monastyrskaya; Tech. Ed.: A.F. Uvarova; Managing Ed. for Literature on Machine Building and Instrument Construction (Mashgiz): V.V. Pokrovskiy, Engineer.
- PURPOSE: This collection of articles is intended for scientists and engineers working in the field of compressor manufacture, and also for students of vuzes specializing in compressors and vacuum pumps.
- COVERAGE: The booklet consists of five articles. The first article presents investigation results and design data for determining resistances in strip-type automatic diaphragm values. The second articles presents for the first time results of the investigation of large diameter diaphragms used in diaphragm-type compressors. The third article presents, also for the first time, experimental results and methods for designing metallic packings for piston-compressor Card 1/2

Design and Investigation of Compressors (Cont.) SOV/2472	
rods. The fourth article presents test results and theoretical data for designing two-stage piston vacuum pumps. The last article presents data on designing diffusion-type oil vacuum pumps. No personalities are mentioned. References follow each article.	
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Condrat'yeva, T.F. Determination of Energy Losses in the Automatic Valves of Piston Compressors	3
loskalev, V.A. Investigating the Strength of Compressor Diaphragms	21
ekunova, O.N. Engineer. Performance of Piston Compressor Packings	33
rolov, Ye.S., Engineer; and V.D. Lubenets, Candidate of Technical Sciences, Volumetric and Power Characteristics of a Two-stage Vacuum Pump With a Slide Valve Gear	
omerantsev, A.A., Professor, Doctor of Physical and Mathematical Sciences and K.P. Shumskiy, Candidate of Physical and Mathematical Sciences. The Theory of High-vacuum Steam-injector Pump Nozzles	
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ard 2/2	GO/gmp -24-59

TROLOV, Ye.S., inzh.; LUBENETS, V.D., kand. tekhn. nauk.

Volume and energy characteristics of double-stage vacuum pumps with valve distribution. Sbor. st. NIIKHIMMASH no.22:65-80 158.

(Vacuum pumps) (MIRA 11:6)

FROLOV, Ye.S., kand.tekhn.nauk

Slip coefficient for two-stage piston vacuum pumps. Izv. vys. ucheb. zav.; mashinostr. no. 4:20-24 '59. (MIRA 13:4)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche im. Baumana. (Vacuum pump)

LUBENETS, V.D., kand.tekhn.nauk, dots.; FROLOV, Ye.S., kand.tekhn.nauk; VASIL'YEV, V.I., inzh.; VLASOV, V.M., inzh.; ZAKHAROV, B.D., inzh.

Investigating the performance of the VN-120 vacuum-pump. Izv. vys. licheb. Eav.; mashinostr. no. 4:166-171 \*59. (MIRA 13:4)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche im. Baumana. (Vacuum pumps)

AUTHOR: Frolov, E.S. Engineer SOV/122-59-3-5/42

TITLE: On the Design of Two-Stage Vacuum Piston Pumps (0

konstruirovanii dvukhstupenchatykh porshnevykh vakuum-

nasosov)

PERIODICAL: Vestnik Mashinostroyeniya, 1959, Nr 3, pp 20-23 (USSR)

ABSTRACT: An investigation carried out at the Moscow Technical University (MVTU) Imeni Bauman is reported, whose object was the determination of the minimum permissible ratio of the swept volumes of the first and second stages in a vacuum pump and the effect of the volume of the inter-stage container on this ratio and on the behaviour of the pump. Changing the volume ratio was accomplished by varying the speed of the second stage. An additional test was carried out with the second-stage volume reduced by a pressed-in cylinder liner. The cross-section of the stage is shown in Fig 1. The swept volume ratio was varied between 1.0 and 0.1. Fig 2 is a plot of the volumetric output against the vacuum achieved at

different stage volume ratios. Fig 3 shows the intermediate pressure as a function of the same ratio together with the achieved vacuum and illustrates the negligible

On the Design of Two-Stage Vacuum Piston Pumps

effect of the intermediate on the final pressure vacuum.

Fig 4 shows the intermediate pressure as a function of the final vacuum for different stage volume ratios. Fig 5 illustrates the same dependence carried to migh higher final pressures. A reduction in the stage volume ratio leads to a more even distribution of pressure ratios by stages and thus reduces the overall power consumed.

The recommended ratio is 0.15 to 0.2. The volumetric output lost thereby (4-10%) can be restored by increasing the mean piston speed of the second stage up to 3-4 m/sec. This is stated to raise the putput by a factor of 3. A two-stage pump so designed under the direction of Lubents, V.D., Candidate of Technical Sciences, Lecturer, based on the vacuum pump of the Shebekino Mach.-Building Works (Shebekinskiy Mashinostroitel'nyy Zavod) is illustrated in cross-section in

SOV/122-59-3-5/42

On the Design of Two-Stage Vacuum Piston Pumps

Fig 6. In this design the second stage acts as the control (spool) valve for the first stage. There are 6 figures and 3 Soviet references.

Card 3/3

SOV/122-59-3-36/42

AUTHOR: Frolov, Ye.S.

TITLE: Investigation

Investigation of the Operation of a Two-Stage Vacuum Piston Pump (Issledovaniye raboty dvukhstupenchatogo

porshnevogo vakum-nasosa)

PERIODICAL: Vestnik Mashinostroyeniya, 1959, Nr 3, p 87 (USSR)

ABSTRACT: Author's summary of a dissertation submitted to the
Moscow Technical University (Moskovskoye Vyssheye
Tekhnicheskoye Uchilishche Ordena Lenina I Ordena
Trudovogo Krasnogo Znameni Imeni Baumana) for the
attainment of the Degree of Candidate of Technical
Sciences. On the basis of experimental work, the
volumetric and power properties of the vacuum pump have
been established; the coefficients which characterise
the pump operation have been formulated. The components
of the coefficient of evacuation and the relationship
between the volumes of the two stages, appropriate in

Card 1/2 practice, have also been found. The effect of the

SOV/122-59-3-36/42
Investigation of the Operation of a Two-Stage Vacuum Piston Pump mean piston speed, the cross-sectional area of the cylinder ports and the effect of the angular range of port opening on the output and degree of evacuation produced by the pump have been established.

Card 2/2

KOZLOV, V., inzh.; FROLOV, Ye., kand.tekhn.nauk

Measurement of the temperature of a working body in the cylinder of a heat engine. Khol.tekh. 37 no.4:9-13 Jl-Ag '60.

(MIRA 13:11)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche im. N. E. Baumana. (Compressors) (Temperature—Measurement)

ZEDGINIDZE, G.P.; FROLOV, Ye.S., kand. tekhn. nauk, retsenzent; STROGANOV, L.P., inzh., red.; DEMKINA, N.F., tekhn. red.

[Measuring the temperature of rotating machine parts]Izmerenie temperatury vrashchaiushchikhsia detalei mashin. Moskva, Mashgiz, 1962. 270 p. (MIRA 15:10) (Thermometry)

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TWIFTEREST PORTER BEFORE THE PROPERTY OF THE

GOLOVINTSOV, A.G., doktor tekhn.red. prof. [deceased]; RUMYANTSEV,
V.A., dots.; AlDASHEV, V.I.; PESHTI, Yu.V.; PLASTININ, P.I.;
SUSLOV, A.D.; FROLOV, Ye.S.; YAMINSKIY, V.V.; STRAKHOVICH, K.I.,
doktor tekhn.nauk, prof., retsenzent; PALFYEV, N.M., inzh., red.

[Rotary compressors] Rotatsionnye kompressory. [Ry] A.G.
Golovintsov i dr. Moskva, Izd-vo "Mashinostroenie," 1964.
314 p. (MIRA 17:7)

1. Fakul'tet teplovykh i gidravlicheskikh mashin Moskovskogo
vvsshego tekhnicheskogo uchilishcha imeni N.Ye. Faumena

'for all except Strakhovich, Paleyev',

KATSIGRAS, G.; SERGEYEV, A.; FROLOV, Yu.

Improving the repairing of oil pumps. Avt.transp. 4C no.4:
25-27 Ap '62.

(Oil hydraulic machinery--Maintenance and repair)

GRAMENITSKIY, V.N.; FROLOV, Yu.A.; KHANSUVAROV, K.I.

Grade 0,02 standard manometer with measurement limits from 0 to 2,5 kgf/cm<sup>2</sup>. Izm.tekh. 10.11:19-20 N '61.

(MIRA 14:11)

(Manometer)

ANASTASIYEV, Petr Ivanovich; ZELENETSKIY, Mikhail Mikhaylovich; FROLOV, Yuriy Aleksandrovich; KRASOVSKIY, K.F., red.; BUL'DYAYEV, N.A., tekhn. red.

[Ovorhead electric power distribution lines of industrial enterprises] Vozdushnye linii elektroperedachi promyshlennykh predpriiatii. Moskva, Gosenergoizdat, 1962. 279 p. (MIRA 15:12) (Electric power distribution) (Electric lines--Overhead)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513810012-0"

ANASTASIYEV, Petr Ivanovich; FROLOV, Yuriy Aleksandrovich; KAMINSKIY, Ye.A., red.; FRIDKIN, L.M., tekhn. red.

[Overhead power transmission lines with carrying capacity up to 1000 volts] #6sdushnye linii do 1000 v. Moskva, Gosenergoizdat, 1963. 87 p. (Biblioteka elektromontera, no.87) (MIRA 16:5)

(Electric lines--Overhead)

AMASTASIYEV, Petr Ivanovich; FMOLOV, Yuriy Aleksandrovich;

KARSAULIDZE, A.N., red.

[Construction and erection of 3-10 kv. lines; construction operations] Scoruzhenie i montazh linii 3-10 kv;

stroitel'nye raboty. Moskva, Emergiia, 1964. 46 p.

(Biblioteka elektromontera, no.131)

(MIRA 17:9)

ZVENIGORODSKIY, Iosif Solomonovich; FROLOV, Yuriy Aleksandrovich; KAYETANOVICH, M.M., red.

[Steel wires and busbars in electrical networks with ratings up to 1,000 volts] Stal'nye provoda i shiny v elektricheskikh setiakh do 1 000 v. Moskva, Izd-vo "Energiia," 1964. 55 p. (Biblioteka elektromontera, no.125)

ANASTASIYEV, Petr Ivanovich; FROLOV, Yuriy Aleksandrovich; KARSAULIDZE, A.N., red.

[Construction and erection of 3-10 kv. power transmission lines; erection operations] Scorushenie i montash linii 3-10 kv; montashnye raboty. Moskva, Emergiia, 1965. 47 p. (Biblioteka elektromontera, no.155) (MIRA 18:6)

The DSP-80 electric-arc steel furnace with an 80-ton capacity.
Biul.tekh.-ekon.inform. no.11:8-10 '59. (MIRA 13:4)
(Electric furnaces)

5694-69035

s/078/60/005/05/10/037 BOCA/BO16

21.1320 5.2200 AUTHORS:

Yegorov, G. F., Fonin, V. V., Frolov, Yu. G., Yagodin, G. A.

TTTLE:

Solvate Forms of Zirconium- and Hafnium Nitrates

butyl Phesphate

PERTODICAL:

Zhurnel neorganicheskoy khimii, 1960, Vol. 5, No. 5,

pp. 10/4-1050

TEXT: In the introduction, the authors mention in brief the problems dealt with: preparation of zirconium with a minimum hafnium content, investigation of the mechanism of the (CAH90) PO (TBP) extraction, investigation of the

solvate form. Next, they describe the purification of the reagents. The partition coefficients of Zr and HF were determined by means of Zr 5 and Live Hf  $^{181}$ . The resultant Nb  $^{95}$  was separated from Er  $^{95}$  by means of MnO2. The extractions were carried out at 20° and at a zirconium- and hafnium concentration of 10.5 moles/). First of all, the extraction of nitric acid by tributyl phosphate (TEP) at different acidity and concentration of the NO.

Card 1/3

Solvate Forms of Zirconium- and Hafnium Nitrates With Tributy) Phosphate

\$/078/60/005/05/10/037 B004/B016

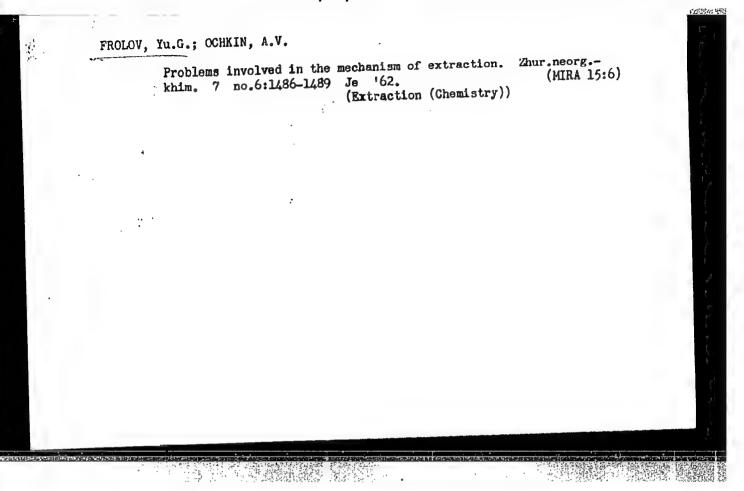
tons was investigated. In this connection, the authors refer to papers by A. S. Solovkin (Ref. 2), A. M. Rozen (Ref. 6), V. V. Fotain, and Ye. P. Mayorova (Refs. 3,4,7). The existence of the complexes TBP.  $\text{HRO}_3$  and Thy, 2000, assumed by the last-mentioned authors in Ref. 7, and the values of their instability constants (0.22 and 0.00044) were confirmed experimentally (Table 1). Xylene was used as the solvent for TEP. The dependence of the nitric-acid extraction on the concentration of hydrogen ions and in the presence of MaNO3, MH4HO3, LikO5 or Mg(NO3), to shown in table 2. The mechanism assumed of HNO; extraction holds in a wide single : ho in the presence of an excess of  $80\frac{1}{3}$  tens. It is proved for the extraction of Zr and Ht that the partition coefficients & are proportional to the concentration of free TBP in the organic phase. The number of solvating TBP molecules was determined from the dependence of leng on log(TBP) org. Experimental data for zirconium are presented in table 4, for hafnium in table 4. It resulted that partition coefficients of Zr and Ht increased with increasing TEP con-Cara 2/3

Solvate Forms of Zirconium- and Hafnium Nitrates With Tributyl Phosphate

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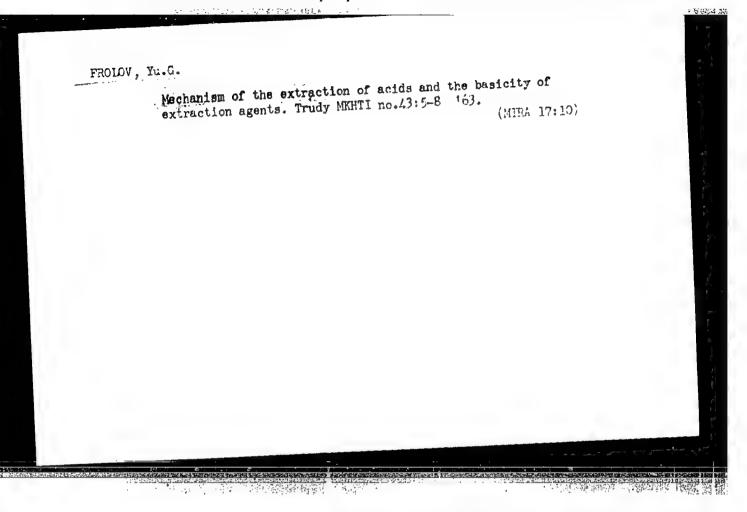
centration in the organic phase. On the basis of the diagram  $\log \alpha$  , log(TBP) (Fig. 1), the formation of the solvate Le(NO3)4.TBP results, for low TBP concentrations and the solvate  $\mathrm{Fe}(\mathrm{EO}_{5})_{4}$ -2TBP for higher TBP concontrations. At HNO3 concentrations of 5 moles/1 the formation of more complicated complexes is assumed, which, however, was not further investigated. Figs. 2,7 depict the dependence of the partition coefficients of Er and Ff on the hydrogen-ion concentration and the concentration of the seded nitrates. The X-values decrease with decreasing hydrogen-ion concentration. this decrease, however, depends on the type of the added nitrate. In the presence of  $\mathbb{RH}_{4}^{+}$  and  $\mathbb{Ra}^{+}$ , bivalent ions,  $\mathbb{Z}_{t}0^{2+}$ , or  $\mathbb{Z}_{r}(0\mathbb{E})_{2}^{2+}$  are dissolved. The deviation of the dependence of of from linearity in the presence of lit and Mg2+ is explained by a stronger hydration of these ions. There are 3 figures, 4 tables, and 7 references, 6 of which are Coviet. SUBMITTED: February 4, 1959

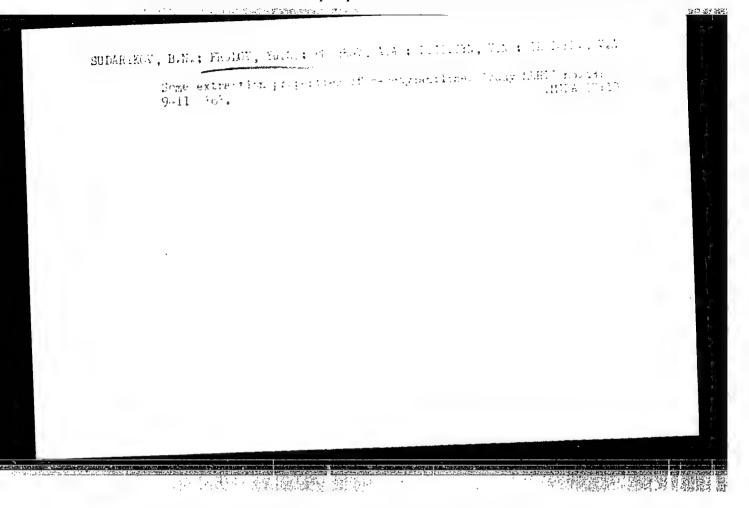
Card of 5



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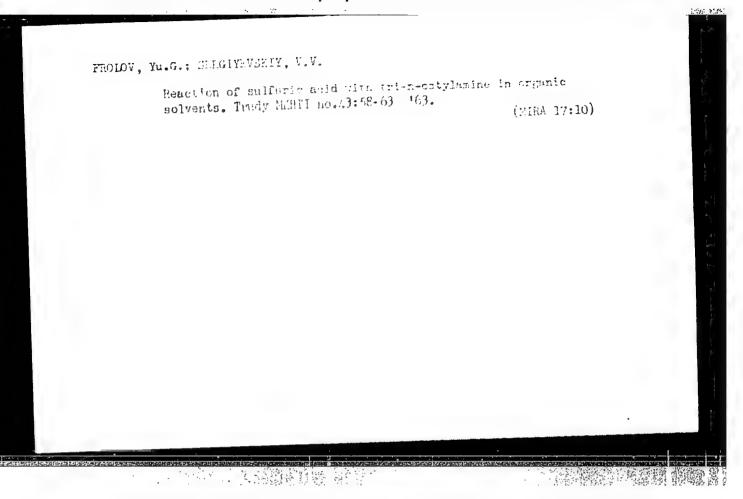
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SUDARIKOV, B.N.; FROLOV, Yu.G.; IL'ICHEV, V.A.; PUSHKOV, A.A.; VAKHAROV-NARTSISSOV, O.I.; OCHKIN, A.V.

Physicochemical properties of some n-aliphatic amines. Trudy MKHTI no.43:21-28 163. (MIRA 17:10)



## "APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000513810012-0

ZVYAGINTSEV, 0.Ye.; FROLOV, Yu.G.; SUDARIKOV, B.H.

Mechanism of the extraction of tetra- and hexavalent uranium sulfates by tri- and di-n-octylamines. Trudy MKHTI no.47:134-139 164.

(MEA 18:9)

FROLOV, Yu.G.; SERGIYEVSKIY, V.V.

Effect of n-octyl alcohol on the extraction of sulfuric acid with tri n-octylamine. Zhur. neorg. khim. 10 no.3:697-702
Mr '65.

(MIRA 18:7)

ZVYAGINTSEV, O.Ya.; FROIDV, Yu.G.; CHEN' TSZIN'LEAN; VAL'ROV, A.V.

Extraction of sulfuric acid and ura yl sulfate with N-alkylenilines.
Zhur.neorg.khim. 10 no.41981.985 Ap 165.

(MIRA 18:6)

ZVYAGINTSEV, O.Ye.; FROLOV, Yu.G.: PUSHKOV, A.A.; DUSHEK, B.

Extraction of inorganic acids by antline derivatives. Zhur.
neorg. khim. 10 no.2:512-517 F '65. (MIRA 18:11)

1. Submitted Sept. 16, 1963.

YALABINA, A.V.; TYUKAVKINA, N.A.; YASHINA, O.G.; MAKHRO, L.P.; FROLOV, Yu.L.

Synthesis and properties of vinyl ethers of some higher phenols. Izv.vys.ucheb.zav.;khim.i khim.tekh. 4 no.4:626-631 '61.

(MIRA 15:1)

1. Irkutskiy gosudarstvennyy universitet imeni Zhdanova, kafedra vysokomolekulyarnykh soyedineniy i organicheskogo sinteza.
(Phenols) (Ethers)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513810012-0"

FROLOV. Yu.L.; FILIPPOVA, A.Kh.; KALABINA, A.V.; POGODAYEVA, L.K.;
TYUKAVKINA, N.A.

Physical studies in the area of unsaturated aryl ethers and their derivatives. Part 1: Spectra of vinyl substitutes ether of phenol. Zhur.strukt.khim. 3 no.6:676-679 '62. (MIRA 15:12)

1. Irkutskiy gosudarstvennyy universitet.
(Phenol) (Ethers-Spectra)

KALABINA, A.V.; DUBINSKAYA, E.I.; FILIPPOVA, A.Kh.; FROLOV, Yu.L.; RATOVSKIY, G.V.

Synthesis of vinyl ethers of nitro- and halonitrophenols. Izv. vys.ucheb.zav.; khim. i khim.tekh. 7 no.2:232-236 164.

(MIRA 18:4)

1. Irkutskiy gosudarstvennyy universitet im. A.A.Zhdanova, kafedra vysokomolekulyarnykh soyedineniy.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513810012-0"

MAKSYUTIN, Yu.K.; FROLOV, Yu.L.; KALABINA, A.V.; SHEVELEVA, V.A.

Hydrogen bonding between phen 1s and viryl and ary! ethers.

Zhur.fiz.khim. 38 no.11:2604-2607 N '64. (MIRA 18:2)

1. Irkutskiy gosudarstvennyy universitet imeni Zhdanova.

FROLOV, Yu.L.; KALABINA, A.V.; FILIPPOVA, A.Kh.

Physical studies of unsaturated anyl ethers and their derivatives. Part 2: Capacity of an oxygen atom of transmitting electron effects. Zhur. struk. khim. 6 no.3:397-401 My-Je \*65.

(MIRA 18:8)

1. Irkutskiy gosudarstvennyy universitet imeni A.A.Zhdanov.

FRULOV, Yu.L.

Calculating the W-electron structure of certain simple vinylethers by the semiempirical method of a celf-censistent MOLKAG Field. Izv. vys. ucheb. zav.; fiz. 8 nc.3:177-177 165.

1. Irkutskiy gosudarstvennyy universitet ineni A.A.Zhdanova.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513810012-0"

FROLOV, Yu.M., inzh.

Now method of installing grounding circuits. Mont. i spets. rab. v stroi. 24 no.7:23-24 Jl 162. (MIRA 15:6)

1. Vsesoyuznyy trest po elektrifikatsii promyshlennykh predpriyatiy tsentral'nykh rayonov SSSR.

(Electric currents—Grounding)

FROLOV, Yu.M., inzh.; MATSNEV, L.M., inzh.

Hand welding of aluminum box-shaped busducts. Mont. i spets. rab. v stroi. 25 no.3:15-16 Mr \*63. (MIRA 16:2)

1. Vsesoyuznyy trest po elektrifikatsii promyshlennykh predpriyatiy tsentralinykh rayonov SSSR.

(Bus conductors (Electricity)—Welding)

# "APPROVED FOR RELEASE: 06/13/2000

#### CIA-RDP86-00513R000513810012-0

11 11.10年10月2日 12.10年11月1日 12.

-i;	L_10258-66
	INVENTOR: ROUBLE UN/0286/65/000/017/0048/0048
	INVENTOR: Roshchin, V. V.; Grinenko, V. I.; Gusakov, G. I.; Frolov, Yu. M.; Novikov,
14.	ORG: none
	TITLE: Method of automatic TIG welding of fixed tube joints. Class 21, No. 174299  SOURCE: Byulleten' isoland
	120breteniy i tovarnykh znakov, no. 17 1065 he
	TOPIC TAGS: welding, metal welding, TIG welding, automatic welding, pipe
	ABSTRACT: This Author Certificate introduces a method of sutcertificate introduces a method of sutcertificate
	ler wire is fed at the moment when the electrode crosses it. A modified method, in gram and the filler wire is fed correspondingly from the accordance with the pro-
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	ler wire is fed at the moment when the electrode crosses it. A modified method, in which the direction of welding is reversed after each pass in accordance with the program and the filler wire is fed correspondingly from two sides, is mentioned. [MS]  SUB CODE: 13/ SUBM DATE: 13May64/ ATD PRESS: 4/160
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22-28-70	ler wire is fed at the moment when the electrode crosses it. A modified method, in which the direction of welding is reversed after each pass in accordance with the program and the filler wire is fed correspondingly from two sides, is mentioned. [MS]  SUB CODE: 13/ SUBM DATE: 13May64/ ATD PRESS: 4/160

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AUTHOR: Frolov, Yu.N.

On Mon-Homogeneous Equations of Infinite Order in a Generalized TITLE:

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya I matematika, mekhanika, 1960, No.4, pp.3-13

TEXT: Let

(2) 
$$f(z) = \sum_{k=0}^{\infty} a_k z^k, \quad a_k \neq 0 \quad (k=0,1,2,...)$$

be an entire function of the order q and of the type  $\mathfrak{S} \neq 0, \infty$ . Let exist

(3) 
$$\lim_{k\to\infty} k^{1/2} \sqrt[k]{|a_k|} = (\Im e_3)^{1/2}$$

Let  $F(z) = \sum_{k=0}^{\infty} b_k z^k$  be an arbitrary function regular in  $|z| < R \le \infty$ . Let the

generalized derivative

(4) 
$$D^{n}F = D^{n}(F,f) = \sum_{k=n}^{\infty} b_{k} \frac{a_{k-n}}{a_{k}} z^{k-n}$$

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On Non-Homogeneous Equations of Infinite Order in a Generalized Derivative be also regular in  $|z| \in \mathbb{R}$ . Let further  $\psi(t) = \sum_{k=0}^{\infty} c_k t^k$  be an integral sum of the order y and finite type  $G_1$ . The author considers the equation (7)  $M(F) = \varphi(z)$ , where the operator M(F) is defined by

(5)  $M(P) = \sum_{k=0}^{\infty} c_k D^k P$ 

Lemma: If  $\varphi(z)$  is an entire function of the order 3 and of the type  $\mathfrak{S}_1$ ,  $\epsilon>0$  and arbitrary,  $\mu>0$  and fixed, then for a sufficiently large r there exists a circle within the annulus  $r\leq |z|\leq (1+\mu)r$  on which where

 $H(\mu) = \left[2+\ln\frac{8e(1+\mu)}{\mu}\right] \left[2e(1+\mu)\right]^{3}, |z| \geqslant r > r_{o}(\xi)$ Card 2/5

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On Non-Homogeneous Equations of Infinite Order in a Generalized Derivative Theorem 1: Let  $\delta > 0$  be arbitrary, fixed and  $\phi(z) = \sum_{k} \alpha_k z^k$  be a function regular in the circle

$$|z| < \gamma(\mathbf{r}) = \frac{\frac{(1+\delta)^{S}}{S}}{1+\delta} \left[ \frac{M^{9}(\mathbf{r}) + \frac{\sigma_{1}H}{S}}{s} \right]^{1/9},$$

where r>0,  $H = \left[2+\ln\frac{8e(1+\delta)}{\delta}\right]$ ,  $\left[2e(1+\delta)\right]^9$ ,  $\mu(r) = \left(r^9 + \frac{\sigma_1}{\delta}\right)^{1/9}$ . Then for every  $r_1 < r$  there exists a particular solution of

(11)  $M(F) = \dot{\phi}(z)$  being regular in  $|z| < r_1$ .

Theorem 2: If  $\phi(z) = \sum_{k=0}^{\infty} z^k$  is an entire function, then there exists a solution of (11) being entire too.

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